# Exhibit U

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# UNITED STATES DISTRICT COURT **EASTERN DISTRICT OF TEXAS** MARSHALL DIVISION

HEADWATER RESEARCH LLC,

Plaintiff,

Civil Action No. 2:23-cv-00352-JRG-RSP

v

CELLCO PARTNERSHIP D/B/A VERIZON WIRELESS and VERIZON CORPORATE SERVICES GROUP INC.,

Defendants.

Jury Trial Demanded

EXPERT REPORT OF MARK LANNING REGARDING INVALIDITY OF U.S. PATENT NO. 9,198,042

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transmission networks. After completion of the 2.5G network design, we performed a large part of the qualification, testing and rollout phases for new equipment suppliers and their applicable products into Nextel's network.

- 19. In addition to my experience listed above, for at least the past ten years, in connection with my consulting work and otherwise, I have worked extensively with the 3G, 4G, and 5G network standards and their associated equipment and protocols including through my study of each new release of these standards, technical books and trade publications and by evaluating the functionality of many different types of network equipment, mobile devices, baseband chipsets and literally thousands of cellular network oriented patents.
- 20. I am a member of the Institute of Electrical and Electronics Engineers (IEEE), including the IEEE Standards Association. I am also a member of the Association for Computing Machinery (ACM). I was also a member of the American National Standards Institute (ANSI) T1 and T1X1 standard groups responsible for the definition and standardization of the Advanced Intelligent Network (AIN) and Signaling System 7 (SS7) protocol. The relevant parts of the standards created by these two groups was incorporated by the CCITT for the international SS7 standard.
  - 21. I received a B.S. in Computer Science from SMU in 1983.

### IV. SCOPE OF WORK

- 22. I have been asked to compare the subject matter recited in the Asserted Claims of each of the '042 patent to publications and patents that predate the priority date(s) when analyzing each of the Asserted Patents. For the '042 patent, I have provided my analysis under the alleged priority date of January 28, 2009.
- 23. I was requested to consider issues regarding validity of the Asserted Claims in this litigation and specifically address the following topics:

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# XII. CONCLUSIONS

494. For the reasons described above, it is my conclusion that the Asserted Claims are invalid as obvious, for obviousness-type double patenting, or otherwise invalid as claiming patentineligible subject matter. In the event that the Defendants are found to infringe the Asserted Claims, Defendants' prior commercial use of subject matter that would otherwise infringe precludes a finding of infringement.

495. My conclusions are subject to change based on additional opinions that Plaintiff's experts may present and information I may receive in the future or additional work I may perform. With this in mind, based on the analysis I have conducted and for the reasons set forth below, I have reached the conclusions in this report.

496. At trial and as discussed above, I may rely on visual aids and may rely on analogies concerning elements of the Analyzed Patents discussed in this report, the accused products, the prior art referenced in this report, or any related technologies.

497. In connection with my anticipated testimony in this action, I may use as exhibits various documents produced in this case that refer or relate to the matters discussed in this report. I have not yet selected the particular exhibits that might be used. In addition, I may create or assist in the creation of certain demonstrative evidence to assist me in testifying, and I reserve the right to do so, such as working with computer systems or code highlighting to further support the positions in this report. For example, at trial I may rely on compiled or uncompiled versions of the source code cited in this report, in order to illustrate the relevant functionality of that source code and aide the jury in their understanding. Again, certain demonstrative evidence has not yet been created.

Mark B. Lanning

Mark R. Lanning

January 29, 2025